

CLAIMS

What is claimed is:

1. A system for post weld conditioning of a weld, said system comprising:

5 a first high energy source for producing said weld in a tubular, said tubular being mounted for movement with respect to said first high energy source such that said weld forms an elongate bead, said elongate bead being formed along said tubular so as to be parallel to said movement of said tubular when said tubular is moved with respect to said first high energy source; and

10 a second high energy source, said tubular being mounted for movement with respect to said second high energy source, said second high energy source being aligned with said first high energy source so as to be positioned for applying energy to said elongate bead to thereby melt an upper portion of said elongate bead.

15 2. The system of claim 1, wherein said first high energy source comprises a laser beam welder.

3. The system of claim 1, wherein said second high energy source comprises a TIG welder.

4. The system of claim 1, wherein said tubular comprises a vessel suitable for containing pressure.

5. The system of claim 1, wherein said first high energy source and said second high energy source are fixed in position with respect to each other.

6. A method for post weld conditioning in a tubular prior to working of said tubular, said method comprising:

automatically welding a lengthwise seam in said tubular to form an initial elongate bead, said initial elongate bead having a crown portion with an initial width and extending radially outwardly

5 of a surface of said tubular by an initial radial distance;

subsequently automatically melting said crown portion of said initial elongate bead to thereby form a conditioned elongate bead whereby said conditioned elongate bead comprises a conditioned width greater than said initial width of said initial elongate bead.

10 7. The method of claim 6, wherein said conditioned elongate bead extends outwardly from said surface of said tubular by a conditioned radial distance, said conditioned radial distance being less than said initial radial distance.

8. The method of claim 6, permitting said initial elongate bead to solidify prior to said
15 subsequent melting of said crown portion of said initial elongate bead.

9. The method of claim 6, further comprising utilizing a laser beam welder to form said initial elongate bead.

10. The method of claim 9, further comprising moving said tubular with respect to said laser beam welder.

11. The method of claim 6, further comprising utilizing a TIG welder for melting said crown
5 portion.

12. The method of claim 6, further comprising working said tubular to compress said conditioned elongate bead whereby a weld zone is formed having a final width greater than said conditioned width.

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13. A method for post weld conditioning, said method comprising:

producing an initial elongate bead by affixing an initial welding machine in position and moving a work piece to be welded with respect to said initial welding machine, said initial bead having a crown portion with an initial width, said crown extending radially outwardly of a surface of said tubular by an initial radial distance; and

producing a conditioned elongate bead by melting said crown portion of said initial elongate bead with a subsequent welding machine mounted in position to follow said initial elongate bead as said workpiece is moved, said conditioned elongate bead extending outwardly from said surface of said tubular by a conditioned radial distance, said conditioned radial distance being less than said initial radial distance.

14. The method of claim 13, wherein said conditioned elongate bead comprises a conditioned width greater than said initial width of said initial elongate bead.

15. The method of claim 14, further comprising working said tubular to compress said conditioned elongate bead whereby a weld zone is formed having a final width greater than said conditioned width.

16. The method of claim 13, permitting said initial elongate bead to solidify prior to said subsequent melting of said crown portion of said initial elongate bead.

17. The method of claim 13, wherein said initial welding machine comprises a laser beam welder.

18. The method of claim 13, wherein said work piece comprises a tubular.

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19. The method of claim 13, wherein said subsequent welding machine comprises a TIG welder for melting said crown.

20. The method of claim 13, further comprising affixing said initial welding machine and said

10 subsequent welding machine with respect to each other.